

**COMP 7125: Computer Forensics  
Syllabus**

**Fall 2020**

**Instructor:** Andrew Neel (aneel@memphis.edu)  
**Office hours:** By Appointment only (Please arrange by email 2-3 days in advance)  
**Location:** Dunn Hall Room 119  
**Time:** Mon/Wed 5:30PM-7PM  
**Key Dates:** Term: Aug 17 – Nov 17  
Final Exam: Wed, Nov 18<sup>th</sup> @ 5:30PM  
**Holidays:** Labor Day: Sept 7<sup>th</sup>  
Study Day: None  
**Text:** *(Forensics) Guide to Computer Forensics and Investigations*  
(6<sup>th</sup> edition). By B. Nelson, A. Phillips, C. Stuart.  
ISBN 978-1337568944, CENGAGE Learning, 2019.

**Course Description**

Societal and legal impact of computer activity: computer crime, intellectual property, privacy issues, legal codes; risks, vulnerabilities, and countermeasures; methods and standards for extraction, preservation, and deposition of legal evidence in a court of law. PREREQUISITE: COMP 3825 and COMP 4270 or equivalent, or permission of instructor.

**Professional Conduct:**

Students are expected to conduct themselves in a professional manner. Each student will further be held accountable to The University of Memphis’s code of conduct.

**Classroom Expectations**

I expect each student to appear in class prepared to discuss the topics of this course. Appropriate preparation includes but is not limited to reading the text, and reviewing recommended online materials, review of source code when needed. I further expect that each student will participate in classroom discussions.

All students are required to wear their face masks while on campus and in accordance with the University Policy. As the University Policy evolves to handle the current state of the pandemic, this requirement will change.

**Grading:**

Mastery of this courses material will be evaluated as follows:

Three (3) exams	50%
One (1) one-page evaluation / analysis of a recent research paper that applies computer science to solve a real-world problem in the field of Computer Forensics <sup>1</sup>	10%
Student Lessons (Demos)	40%

<sup>1</sup> Research papers must be published in a recent journal, professional magazine, or proceedings. Your work must evaluate both the problem and the solution(s) provided to the problem.

**Limited Collaboration Policy:**

Students are permitted and encouraged (but not required) to discuss the ideas and concepts of any classroom topic or assignment. Unless otherwise specified, the product of each assignment and test is expected to be sole, individual work each student. Specifically, students can discuss ideas and concepts; but one student is not permitted to write code or prose for another student. All help is expected to be documented and credited appropriately.

*Warning 1: Each student should accept help with care. It is very easy to mislead yourself into believing that you understand a concept when others are providing aid or assisting. In a crunch (such as an exam), this error can prove fatal.*

*Warning 2: Please give help with care. Collaboration is intended to improve the classes understanding of a concept. If too much help is given, students may be enabled to fail!*

Plagiarism or cheating behavior in any form is unethical and detrimental to proper education and will not be tolerated. All work submitted by a student (projects, programming assignments, lab assignments, quizzes, tests, etc.) is expected to be a student's own original work. The plagiarism is incurred when any part of anybody else's work is passed as your own (no proper credit is listed to the sources in your own work) so the reader is led to believe it is therefore your own effort. Students are allowed and encouraged to discuss with each other and look up resources in the literature (including the internet) on their assignments, but appropriate references must be included for the materials consulted, and appropriate citations made when the material is taken verbatim.

If plagiarism or cheating occurs, the student will receive a failing grade on the assignment and (at the instructor's discretion) a failing grade in the course. The course instructor may also decide to forward the incident to the University Office of Student Conduct for further disciplinary action. For further information on U of M code of student conduct and academic discipline procedures, refer to: <http://www.memphis.edu/studentconduct/academic-misconduct/process.php>.

**Course Outline:**

0. Introduction
1. Overview of Computer Forensics
2. Preparing and Processing in Forensic Investigations
3. Incident Response
4. Expert Witness
5. Forensics Tools
6. Operating Systems
7. File Systems
8. Network Forensics
9. Anti-Forensics